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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,382	06/26/2003	Gab Jae Lee	2950-0269P	4732
2292	7590	12/16/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			PHAM, VAN T	
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FALLS CHURCH, VA 22040-0747			ART UNIT	PAPER NUMBER
			2656	

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/606,382		LEE, GAB JAE	
	<b>Examiner</b>		<b>Art Unit</b>	
	VAN T. PHAM		2656	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 10-12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file (Foreign Application 10-202-0035886, date of application Jun 26, 2002).

***Drawings***

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

There is inadequate disclosure of how to make and use the invention of claim 9. The disclosure does not explain or disclose how to derive the equation in claim 9 "the control value

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for generating the specific driving signal level in the step (d2) is calculated by the following equation:  $4 \text{ DAC DSL} = \text{DAC offset} + \text{DSL DSL 1} \cdot \text{times. ( DAC 1 - DAC offset )}$ , where DSL is a driving signal level of the driving signal generator applied to the laser diode, DAC.sub.DSL is a control value for generating a value of DSL, DAC.sub.offset is an offset value, a DAC.sub.1 is a predetermined control value, and a DSL.sub.1 is a driving signal level in response to a value of DAC.sub.1.”. There are no guidelines as to calculate control value for generating the specific driving signal level. Hence there would be undue experimentation for one of skill in the art to make and use the invention.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masaki et al. (US 5,732,055) in view of the admitted art.

Regarding claim 1, see Masaki discloses a method for controlling an optical power level, comprising the steps of: a) regularly increasing a control value of a driving signal generator for driving a pickup unit (see Fig. 3 (78)) adapted to output an optical power (see Figs. 11, 12 and col. 19, line 34- col. 20, line 26); b) checking a driving signal of the driving signal generator according to the increasing control value (see Fig. 12 and Fig. 41B, and see col. 32 lines 933). However, Masaki does not disclose a step of setting a control value at which the driving signal begins to be generated as an offset value for setting up an optical power, but Masaki does

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disclose a writing power adjusting unit increases an offset to be added to the recording limit power (see col. 8, lines 44-61).

The admitted art, see Fig. 2, disclose a step of setting a control value at which the driving signal begins to be generated as an offset value for setting up an optical power.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a step of setting a control value at which the driving signal begins to be generated as an offset value in Masaki as suggested by the admitted art, the motivation being in order to calculate the DAC offset value by a linear equation (see the admitted art [0010]).

Regarding claim 2, the combination of Masaki and the admitted art, discloses a method as set forth in claim 1, wherein the driving signal of the driving signal generator is applied to a laser diode of the pickup unit, and a magnitude of the optical power is determined by a level of the driving signal (see Masaki Fig. 11, col. 4, lines 30-61, and the admitted art Fig. 2).

Regarding claim 3, the combination of Masaki and the admitted art, discloses the method as set forth in claim 1, wherein the offset value is stored in a nonvolatile memory (see the offset value of Fig. 2 in the admitted art and Figs. 4 and 7 in Masaki).

Regarding claim 4, the combination of Masaki and the admitted art, discloses the method as set forth in claim 1, wherein the offset value is determined when an optical disc apparatus to which the method as set forth in claim 1 will be applied is initially driven (see Fig. 2 of the admitted art, the rDACOffset starts when the power  $P=0$ ).

Regarding claim 5, the combination of Masaki and the admitted art, discloses the method as set forth in claim 1, wherein the step (c) includes the steps of: c1) determining a control value

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at which the driving signal of the driving signal generator reaches a predetermined signal level (see Masaki Fig. 7B (206)); and c2) subtracting a predetermined value from the determined control value, and setting the subtracted result value as the offset value (see equations 1 in the admitted art and [0009] and in Masaki Fig. 4 (128, 130, 132), abstract).

Regarding claim 6, the combination of Masaki and the admitted art, discloses the method as set forth in claim 5, wherein the predetermined signal level is within a threshold area of the driving signal of the driving signal generator (see Masaki col. 8, lines 18-35).

Regarding claim 7, the combination of Masaki and the admitted art, discloses the method as set forth in claim 1, further comprising the step of: d) calculating a control value for generating a driving signal of the pickup unit on the basis of the offset value (see equations 1,2 of the admitted art and Figs. 2,3).

Regarding claim 8, see rejection above of claim 5 and Fig. 1, discloses the method as set forth in claim 7, wherein the step (d) includes the steps of: d1) measuring a driving signal level of the driving signal generator in response to a predetermined control value; and d2) calculating a control value for generating a specific driving signal level based on the predetermined control value, the measured driving signal level in response to the predetermined control value, and the offset value (see Masaki abstract and Figs. 7, 10, col. 17, lines 24-38, line 64 – col. 8, line 5 and col. 19, lines 10-33).

#### ***Allowable Subject Matter***

7. Claims 10-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.



Claim 10 is allowable over prior art of record since it does not disclose or suggest all the limitations of claims 1, 7 as well as the limitation that a control value for generating a predetermined driving signal level is previously stored in a nonvolatile memory in the form of a difference between the control value and an offset value for setting up an optical power.

Claims 11-12 are allowed with their parent claim 10.

### *Cited References*

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. A light emission adjustment processing unit of a laser diode sequentially instructs a D/A converter for light emission of a light emission by test powers at two predetermined two points (Masaki US 5,732,055).
- b. The cited references relate to pickup control method and apparatus, and disk unit with gain control during power save mode (Ikeda US 5,715,218).
- c. Calibration of the write signal power level applied to a transducer for making a moving media (Call et al. US 5,268,893).

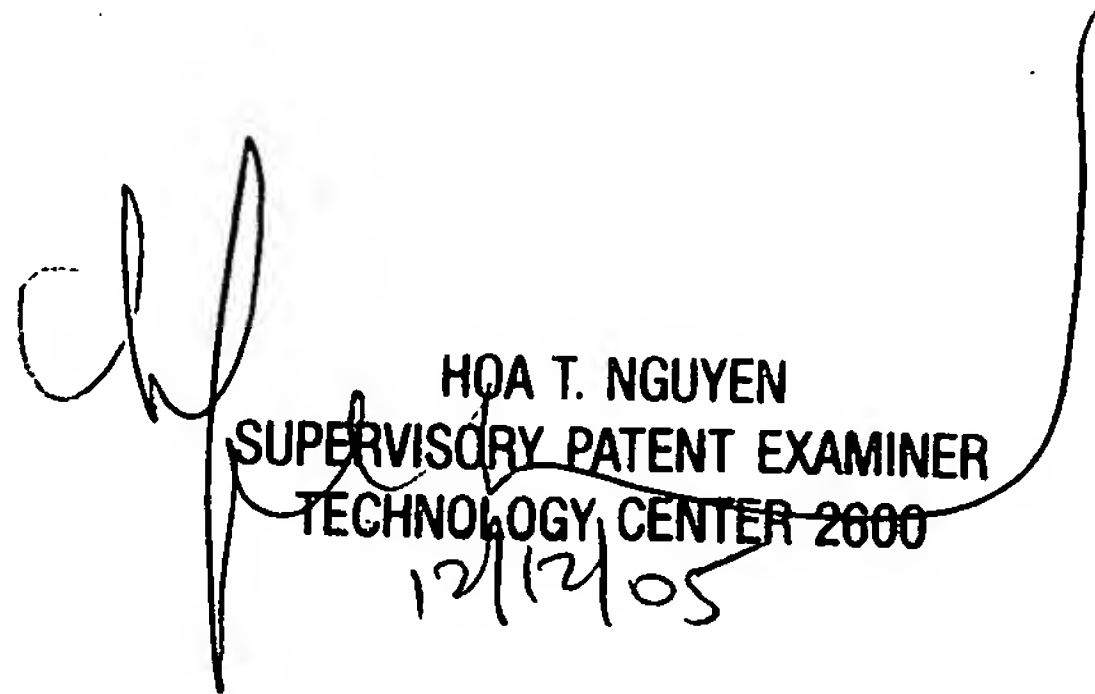
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN T. PHAM whose telephone number is 571-272-7590. The examiner can normally be reached on Monday-Thsday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, HOA THI NGUYEN can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VP

  
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12/12/05